twenty to thirty minutes, and five such occurred within four hours. The nearest doctor was present when I arrived. We found the child's head presenting, and the os uteri soft and dilatable. The convulsions were so severe and prolonged as greatly to endanger life; we therefore chloroformed the patient without delay, and delivered with straight forceps a mature living healthy female child. After removal of the placenta, the convulsions continued, and came on every twenty minutes or so; and as the patient seemed becoming exhausted, we prescribed cold to the head, quiet, and chloral hydras gr. xv and potas. brom. gr. xx every two hours for the first four doses, and every four hours afterwards till consciousness was regained.

On calling three hours after the delivery, I found the patient in a severe convulsion, the face flushed and bedewed with perspiration, and the pulse 130 to 140 per minute, small, feeble, and very compressible. As a *dernier ressort*, I bled at the arm to six ounces. The convulsions immediately ceased, the face grew pale, and the patient never had another convulsion.

Her head was shaved and kept cool, the bowels were attended to, and she had frequent moderate supplies of good nourishment, but no stimulants. She became conscious the second day after delivery (November 28th), and gradually regained her vigour and normal complexion. I ceased to attend her sixteen days after the confinement.

The second case, which occurred June 9th, 1878, was similar to the first in many respects; in both cases the convulsions came on before delivery, and continued after the uterus had been emptied of its contents. In this case, a midwife alone was present at the delivery (which seemed normal in every respect). The presence of the convulsions, their recurrence every forty minutes, and their violence, caused a doctor to be sent for, who prescribed in the emergency. After the case was handed over to me, I gave the chloral hydras and potas. brom. mixture as in the former case, and without any abatement of the convulsions.

On calling again, fifty hours after the delivery, I found the patient still unconscious and convulsed: her face was very much flushed, and both arms were in constant jactitation.

I took six ounces of blood from the left arm, and the patient at once grew pale and calm. She had no more convulsions. Three days thereafter, her intelligence and memory had returned, and she recovered gradually without a bad symptom.

J. EATON, M.D., Cleator Moor.

REVIEWS AND NOTICES.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. VON ZIEMSSEN, Professor of Clinical Medicine in Munich, Bavaria. Vol. XVII. General Anomalies of Nutrition, and Poisons. Translation. Edited by ALBERT H. BUCK, M.D., New York. London: Sampson Low and Co. 1878.

FIRST NOTICE.

IN the first part of this volume, the subjects of Hæmophilia, Scurvy, and Morbus Maculosus are treated by Immermann. They involve much valuable information respecting hæmorrhagic forms of disease, including their etiology, pathology, diagnosis, and treatment. We pass over these subjects to the larger and more important part of the volume; namely, POISONS. About six hundred and sixty pages are devoted to this encyclopædic article; in other words, we have here a treatise on Toxicology on a large scale.

The subject is divided into three parts. The first part, by Professor Boehm of Dorpat, includes poisoning by the metalloids, acids, alkalies, earths, and their salts, and poisoning by anæsthetics; a considerable space being assigned to alcohol, chloroform, and chloral-hydrate. Then follow some gaseous compounds, such as carbonic oxide; charcoal-vapour and coal-gas; certain carbon-compounds, including bisulphide of carbon, benzin, prussic acid, and allied substances; nitro-benzin, aniline and aniline-dyes, carbolic acid, and nitro-glycerine. Among the gases, sulphuretted hydrogen is introduced; and Dr. Boehm concludes his portion of the work by a chapter on tainted articles of diet. Here we meet with a full account of sausage-poisoning and of poisoning by fish and cheese. It will be seen from this description that no order is observed, and we nowhere find any attempts at classification or arrangement.

The second division of the work, including the heavy metals and their salts, as well as arsenic and phosphorus, has been assigned to Dr. Naunyn of Königsberg. The whole of this section is comprised in about one hundred pages.

The third and larger division is devoted entirely to the large class of vegetable poisons, and has been undertaken by Professor von Boeck of Munich. This is the most elaborate portion of the article on poisons, comprising about three hundred pages; and it includes a large amount of recent information on this class of substances.

Although the subject is differently treated by the three writers, they agree in the fact that they bring before the reader a very full and complete modern history of poisons in a medical point of view. Each writer devotes his space chiefly to the physiology, pathology, and treatment of poisoning, with a general disregard of chemistry and medical jurisprudence. The only exception to this remark is that von Boeck enters into a description of the processes for the separation of vegetable poisons from organic substances, and the tests required for their recognition.

We shall, in the first place, examine Dr. BOEHM's contribution to the *Encyclopædia*. Considering how seldom we have to deal with cases of poisoning by chlorine, bromine, and iodine, we think that Dr. Boehm has allotted an undue space to these metalloids, to the exclusion of more important details of other poisons which form a more frequent subject of inquiry. The extensive use of Bromide of Potassium as a medicine has in some instances, by the largeness of the dose or its too frequent repetition, led to the morbid state to which the term *bromism* is here applied. This state is indicated by disorders of the central nervous system, as well as of digestion and nutrition, and by affections of the skin. Among the symptoms noticed are general tremors of the muscles, irritation of the skin, restlessness, and nervous agitation. Single large doses have caused a saline taste in the mouth, increased secretion of saliva, and nausea, with nervous disturbance lasting for eighteen hours. Among these symptoms, Laborde, who experimented on himself, observed depression of spirits, dizziness, disturbance of vision, somnolency, and sleep with bad dreams. There was a diminution of the power of voluntary movement, and an unsteadiness of gait, with a blunting of sensibility. The power to resist the action of the drug varies very much in different individuals. (P. 316.) As to treatment, when the symptoms of bromism are thus fully brought out, Boehm tells us it is sufficient to intermit the use of the drug. The toxic symptoms then cease of themselves. At the same time, the treatment may be supplemented by a strengthening diet, warm baths, and diaphoretics. There is no specific antidote. (P. 321.)

In the section on Anæsthetics, alcohol and alcoholism occupy a conspicuous place. Acute and chronic alcoholic poisoning are fully considered, and numerous authorities are quoted in support of the writers' views. He strongly dissents from the opinion that alcohol in any form improves digestion. Claude Bernard has proved by experiment that, so far from increasing the secretion of gastric juice, alcohol has exactly the contrary effect. In fact, it brings about a diminution of all secretions. Bernard found that he could check digestion in the stomach of a dog, when the process had commenced, by simply introducing alcohol. It is a novelty to hear of mild forms of intoxication resulting from the common application of alcohol or spirits of camphor to wounds under surgical treatment. (P. 390.)

It is well known that the consumption of the liqueur call *Absinthe* has reached enormous proportions in the large towns of France. Besides alcohol, it contains several ethereal oils (anise, fennel, etc), of which the most important is the oil of wormwood; and to the presence of these, no doubt, the great difference from the customary effects of alcoholism is really owing—namely, the frequent occurrence of well-marked epileptic convulsions.

In reference to the danger arising from Chloroform-narcosis, special prominence is given to anomalous conditions of the heart. Dr. Boehm agrees with Sansom that simple valvular incompetency, in the absence of fatty degeneration of the cardiac muscles, does not render chloroform more dangerous or contraindicate its use. "Unfortunately, however, the one pathological condition of the heart which seems to be really a predisposing cause of the bad effects of the narcosis—fatty degeneration of the cardiac muscles—is, as a rule, diagnosed first on the *post mortem* table." (P. 429.)

In reference to Nitrous Oxide, the author observes that "some few fatal cases, which have occurred either during or after the narcosis, show that it is not absolutely devoid of danger. These, however, appear to be solely and simply due to suffocation; and the gas itself appears innocent." (P. 455.) He properly calls attention to the fact that, when the pure unmixed nitrous oxide is used, the narcotic effects of the gas are always combined with the first stage of suffocation. Hence deep narcosis speedily occurs, during which operations only lasting a few seconds (as in tooth-drawing) can be performed quite painlessly and safely. It follows as a matter of course that, if the operation be prolonged to a period of a few minutes, death by suffocation must necessarily result. As loss of consciousness and anæsthesia also occur in the first stages of suffocation, without breathing any narcotic gas, it is somewhat doubtful how far the gas participates in the effects when used in dental practice

in the manner described. (P. 455.) It is, therefore, a serious question, whether dentists are not really operating in these cases on patients whom they half-suffocate by entirely withdrawing the supply of air. Experiment has shown that a dog may be deprived of air during a period of three minutes and fifty seconds, and then recover without any artificial means; but a difference of only twenty seconds may be the difference between life and death. Thus, if the animal be deprived of air for four minutes and ten seconds, he will probably die suffocated.

In reference to Carbonic Oxide, the author notices that it displaces oxygen from the blood and enters into combination with the colouring matter of the blood, in such a way as to render this incapable of absorbing more oxygen. The outward sign of this change is manifested by a peculiar bright cherry-red coloration of the arterial as well as venous blood; whilst in the spectrum of blood containing carbonic oxide the two usual bands of oxyhæmoglobin are replaced by two others, which appear nearer to the violet end of the spectrum; and these carbonic oxide bands exhibit the special character of *not* vanishing on the addition of reducing agents like those of oxyhæmoglobin. (P. 457.) We are further informed that the compound of hæmoglobin with carbonic oxide is crystallisable, just like oxyhæmoglobin. We agree with the author that this relation of carbonic oxide to the blood, which equally occurs in the living body, helps to explain the poisonous properties of the gas, as it makes the further reception of oxygen, and therefore life itself, impossible. The whole mass of the blood is, by its diffusion, speedily robbed of its vital properties.

In the chapter on Prussic Acid, we are informed that the blood-pigment forms a crystalline compound with this poison analogous to that of carbonic oxide. But there is this important difference in the two cases: in poisoning by carbonic oxide, the combination has been demonstrated in the blood of the living animal; but not in poisoning by prussic acid. Schönbein has shown that this poison changes the vital properties of the red blood-discs, and robs them of their power of liberating oxygen from the peroxide of hydrogen. (P. 502.)

In treating of Carbolic Acid poisoning, Boehm observes that it usually runs a very rapid course, and is rarely protracted. All the hitherto noticed fatal cases have proved so within the first twelve hours; some, indeed, after only a few minutes. Even when recovery takes place, this is usually sudden, and does not leave behind it any noteworthy complications. (P. 531.) In its operation on animals, this poison produces symptoms of irritation on the medulla oblongata; but this has not been witnessed in human beings.

The vapour of Bisulphide of Carbon, which strongly impregnates the atmosphere of India-rubber factories, so as to penetrate the skin and hair, has been observed to produce highly prejudicial effects. Digestion is impaired, and the workpeople suffer from severe colic. In the early stages, diarrhœa and constipation alternate with each other. There is troublesome flatulence, the intestinal gases being strongly impregnated with the unpleasant smell of bisulphide of carbon. The urine, which is passed with a painful sensation of scalding, has a similar smell, but contains neither albumen nor sugar. The vapour appears to produce some remarkable effects on the sexual organs. Thus the sexual passion, which is increased at first, rapidly declines at a later stage, and finally there is a complete moral and physical impotency, with a decrease in the size of the testicles. Among women, it is observed that "menstruation always takes place premâturely, and is more profuse than it should be. They never have a child, and their sexual appetite becomes entirely lost." (P. 482.) It would seem that persons who have been long exposed to breathe the vapour of the bisulphide seldom or never completely recover from the effects.

In the chapter on poisoning by Sulphuretted Hydrogen, the author enters into the curious question of self-poisoning by this gas. Thus it is supposed that, under some peculiar conditions, the living body may be self-infected by the generation within itself of sulphuretted hydrogen from albumen or other matters. The number of recorded cases of this kind is very small, and the necessary conditions for their occurrence are as yet little known. (P. 491.)

We must refer the reader to the work itself for a full and satisfactory account of Sausage-poisoning (*Botulismus*). This is essentially a German question. Dr. Boehm is able to supply from the medical journals of his own country, a long array of cases showing the injury to health and the mortality arising from this cause. The only treatment found successful has been the free use of energetic evacuants. We look in vain for any explanation to account for this form of poisoning. Nothing positive can be said as to the nature of the poison, except that it is very probably the result of slow putrefaction of animal substances. Chemistry, however, has not been able to separate any independent poisonous ingredient. The author states that the pathology of sausage-poisoning "is highly obscure; that it differs widely from all other kinds, and cannot well be compared with any of them". It differs also from the effects produced by trichinous, diseased, or putrefied flesh. It has a tedious course, extending over many days and sometimes weeks. These facts "point to processes of change going on in the blood which do not occur in other kinds of poisoning, where we simply have to deal with the absorption and elimination of a foreign body from the system". (P. 537.) It will be seen from these observations that the author leaves this difficult question just where he found it. We gather from his remarks—1. That the meat used for sausages is insufficiently cooked; 2. That it is mixed with a variety of incongruous substances, such as milk, flour, brains, onions, herbs of various kinds, including *Geum urbanum* (bennet-root), and large masses of fat. "The putrefied sausages, when recently cut across, have a dirty greyish-green colour and a soft cheesy-like creamy consistence. They diffuse a very disagreeable smell of putrid cheese. The taste is disgusting, and sometimes causes smarting or soreness of the throat." (P. 541.) We should have thought that in these repulsive characters there would be sufficient warning to prevent the noxious substance from being consumed as food. This form of poisoning, although common in Germany, is rarely seen in England.

The same obscurity seems to rest on the nature of Fish-poison and Cheese-poison, to which subjects Dr. Boehm devotes two chapters. Poisoning by cheese has been occasionally observed in England. "All that is known is that it is usually very old and decomposing or decayed cheese, the use of which by human beings has caused the symptoms of poisoning, whilst animals have partaken freely of it without any harm. The author knows of a case in which a dog ate a whole plateful at once of a poisonous cream-cheese which had been reserved for analysis, and not the slightest symptoms of poisoning were shown by the dog, although he was watched for many days." (P. 552.) There are no external marks by which poisonous cheese can be certainly identified. The taste has been described as bitter and pungent; and the effects consist in general of well-marked gastro-intestinal symptoms, with colicky pains, vomiting, diarrhœa, and disgust at all sorts of food. Then, again, in severe cases, nervous symptoms have shown themselves in the form of vertigo, diplopia, headache, great weariness, and muscular weakness. Cases of cheese-poisoning, like those of sausage-poisoning, are seldom restricted to solitary cases. In general, a number of persons partaking of the food are attacked at once with similar symptoms. Dr. Boehm adopts the theory that the cheese undergoes, not ordinary decay or putrefaction, but "a species of putrefactive decomposition, the products of which are poisonous to human beings". If ordinary decay or putrefaction were the cause, it is obvious that the eaters of Stilton cheese would be frequent sufferers, as this is seldom eaten until putrefaction is far advanced. This theory, however, is not consistent with the following remarkable fact stated by the author. "Husemann relates a case in which a mother and an infant at the breast both suffered from symptoms of cheese-poisoning, so that it would appear that the poison had passed into the woman's milk." (P. 553.) We gather from this that the author admits the existence in cheese of an independent poison not yet isolated by chemistry. It is not suggested that the infant at the breast ate any of the cheese; and we must, therefore, draw the conclusion that some specific poison was in this case absorbed into the blood of the woman, eliminated in her milk, and thus conveyed into the body of the infant, producing the usual symptoms of poisoning.

With this Dr. Boehm concludes his share of the encyclopædic article on Poisons. As about two hundred and seventy pages are devoted to this section, we may look upon it as a treatise on a certain class of poisons in their medical, physiological, and pathological aspects. We consider that the author has executed his task with great skill and judgment. He has collected and condensed from every available and authentic source a large amount of useful information of the most recent kind. By excluding all chemical details, he has been able to give full scope to modern views on the physiology and pathology of poisons. His portion of the work, therefore, will serve as an useful supplement to treatises of a practical kind.

NOTES ON BOOKS.

Short Notes on Foreign Books.

Die Bewusstlosigkeitszustände als Strafausschliessungsgründe, im Sinn der neuesten deutschen, österreichischen, und ungarischen Strafgesetzgebung. Von Dr. Otto Schwartzer. (Tübingen, 1878.) The author is the director of a private asylum for mental sufferers, and has, as such, had a great deal of experience on the subject. His main object in writing this pamphlet was to throw a light on some peculiar mental affections, which, being differently judged by doctors and lawyers, often cause great difficulty in cases where a judgment has to be passed.